TRAFFIC
SAFETY and
YOU !!!!

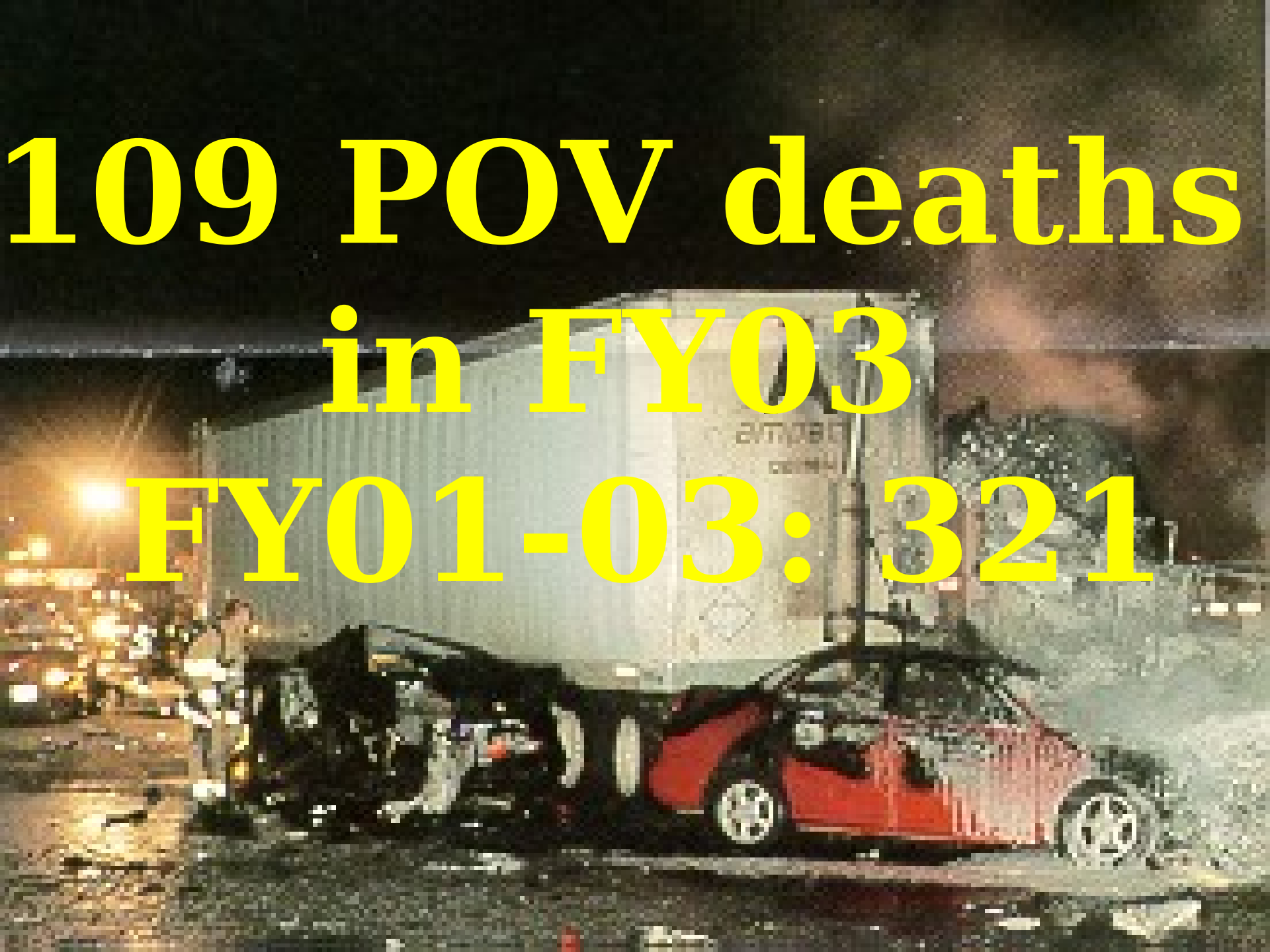
Motor Vehicle Safety

In the US nearly 105 people are killed EVERY DAY in a Vehicle. More than 600,000 people ages 15 to 20 were injured in traffic

US ARMY

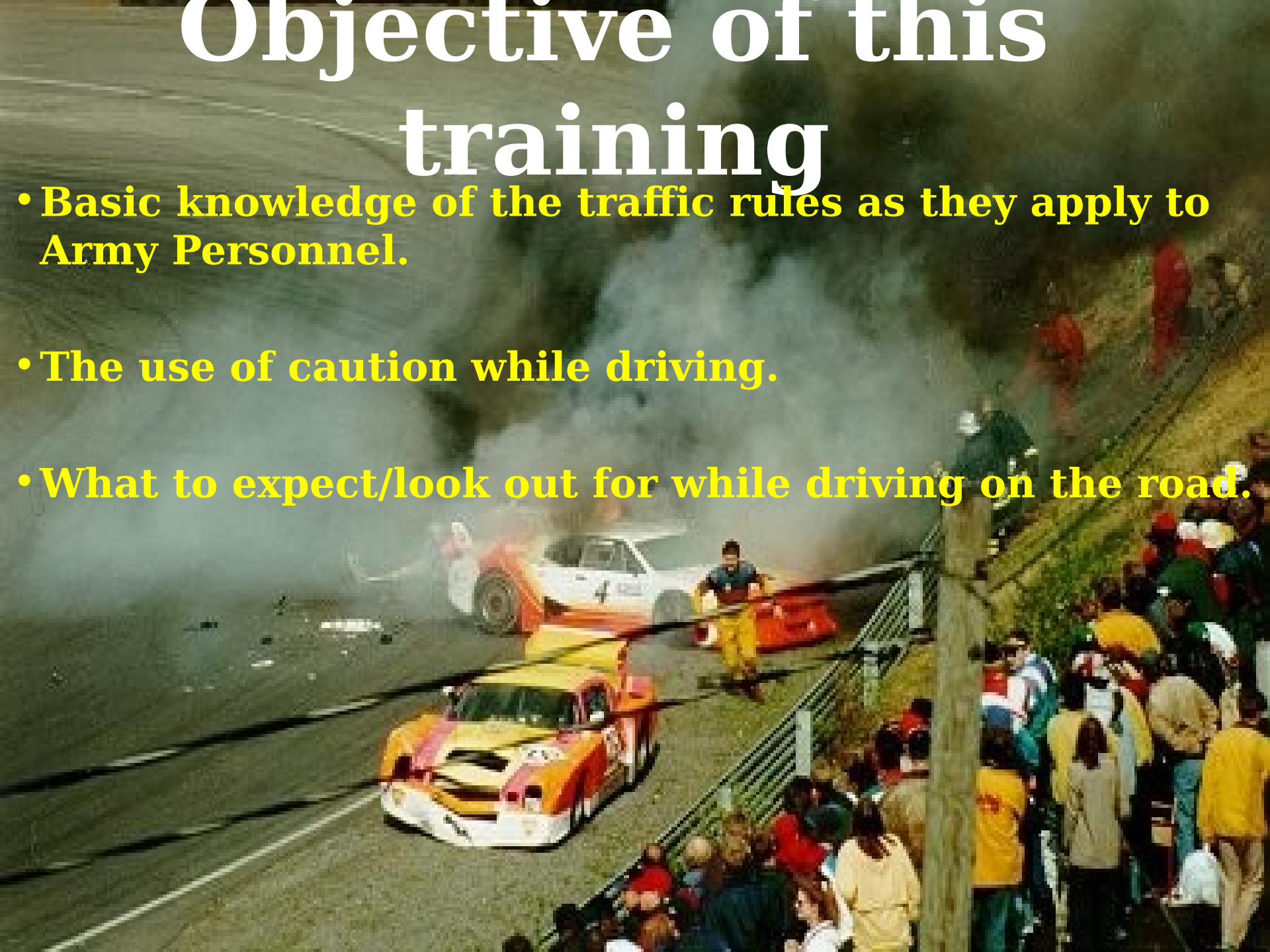
Fatal Factors in FY 2003

POV Traffic Deaths


109 POV deaths
in FY03
FY01-03: 321

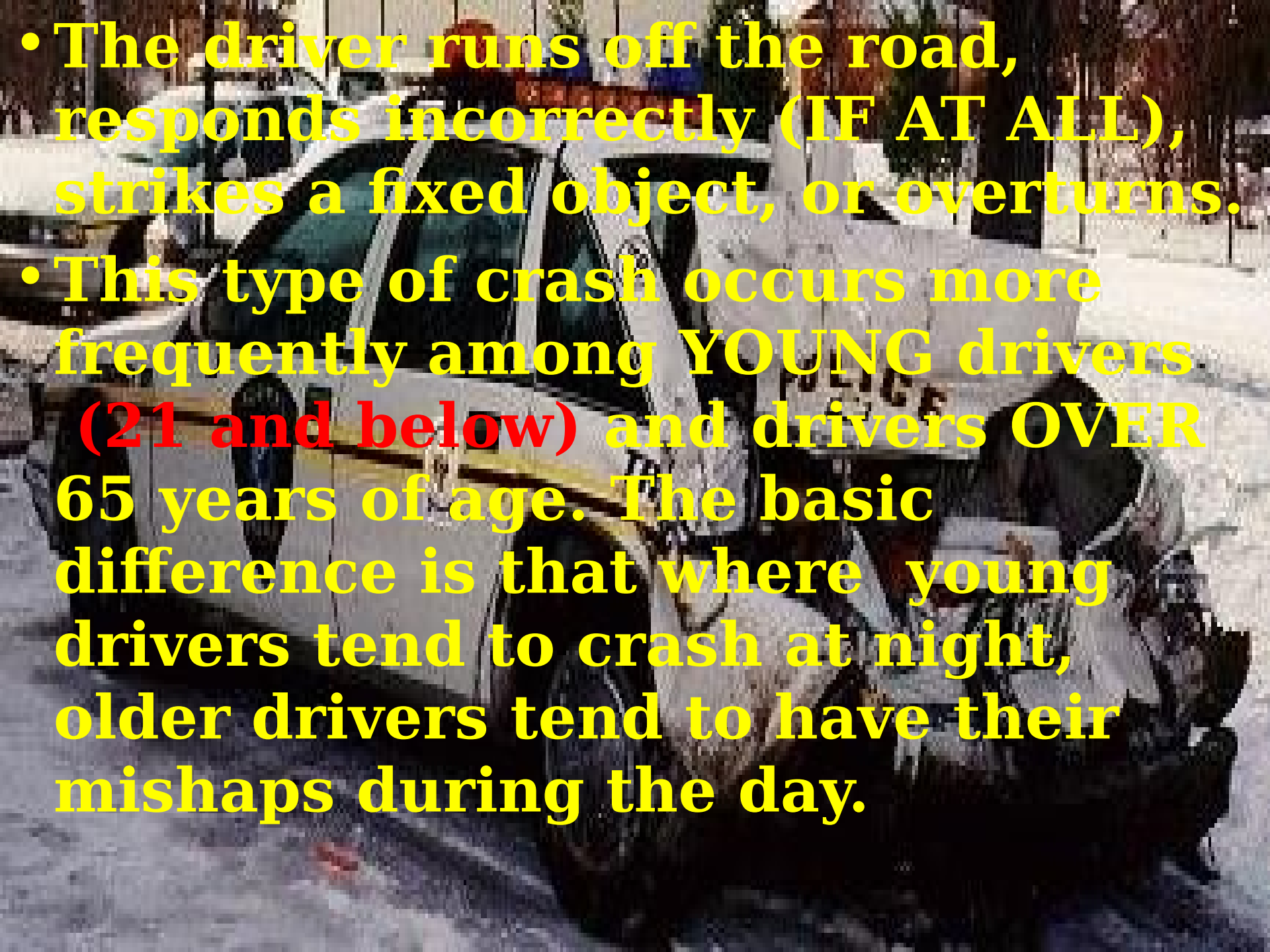
Objective of this training

- **Basic knowledge of the traffic rules as they apply to Army Personnel.**
- **The use of caution while driving.**
- **What to expect/look out for while driving on the road.**

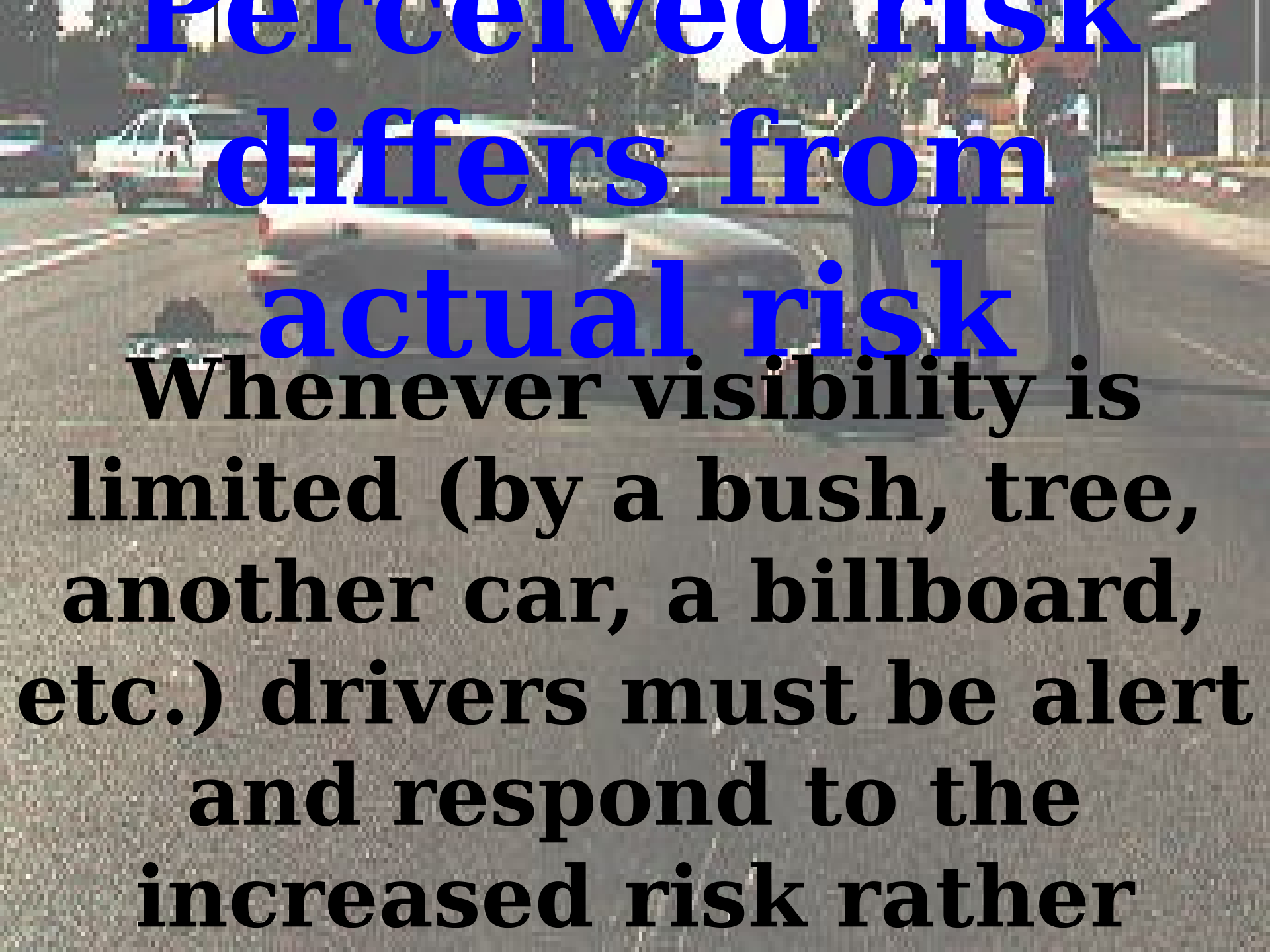


Introduction

- **Risk is always present:**
  - **Approximately 50 percent of ALL vehicle-occupant fatalities involve SINGLE-vehicle crashes, most of which occur on relatively straight roadways.**



- **The driver runs off the road, responds incorrectly (IF AT ALL), strikes a fixed object, or overturns.**
- **This type of crash occurs more frequently among YOUNG drivers (21 and below) and drivers OVER 65 years of age. The basic difference is that where young drivers tend to crash at night, older drivers tend to have their mishaps during the day.**



Perceived risk differs from actual risk

Whenever visibility is limited (by a bush, tree, another car, a billboard, etc.) drivers must be alert and respond to the increased risk rather

Risk is Shared

- It's important to remember that actions of ALL roadway users (pedestrians, animals, bicyclists, or drivers).
  - AFFECT ALL OTHER USERS

What are the shared costs?

- The costs resulting from any collision are not restricted to persons who fail to take safety precautions.

Some shared costs from bad drivers:

- HIGH MEDICAL COSTS
- REHABILITATION COSTS
- INSURANCE PREMIUMS
- INCREASED TAXES
- FAMILY DISTRESS
- UNPAID BILLS

Risk can be altered

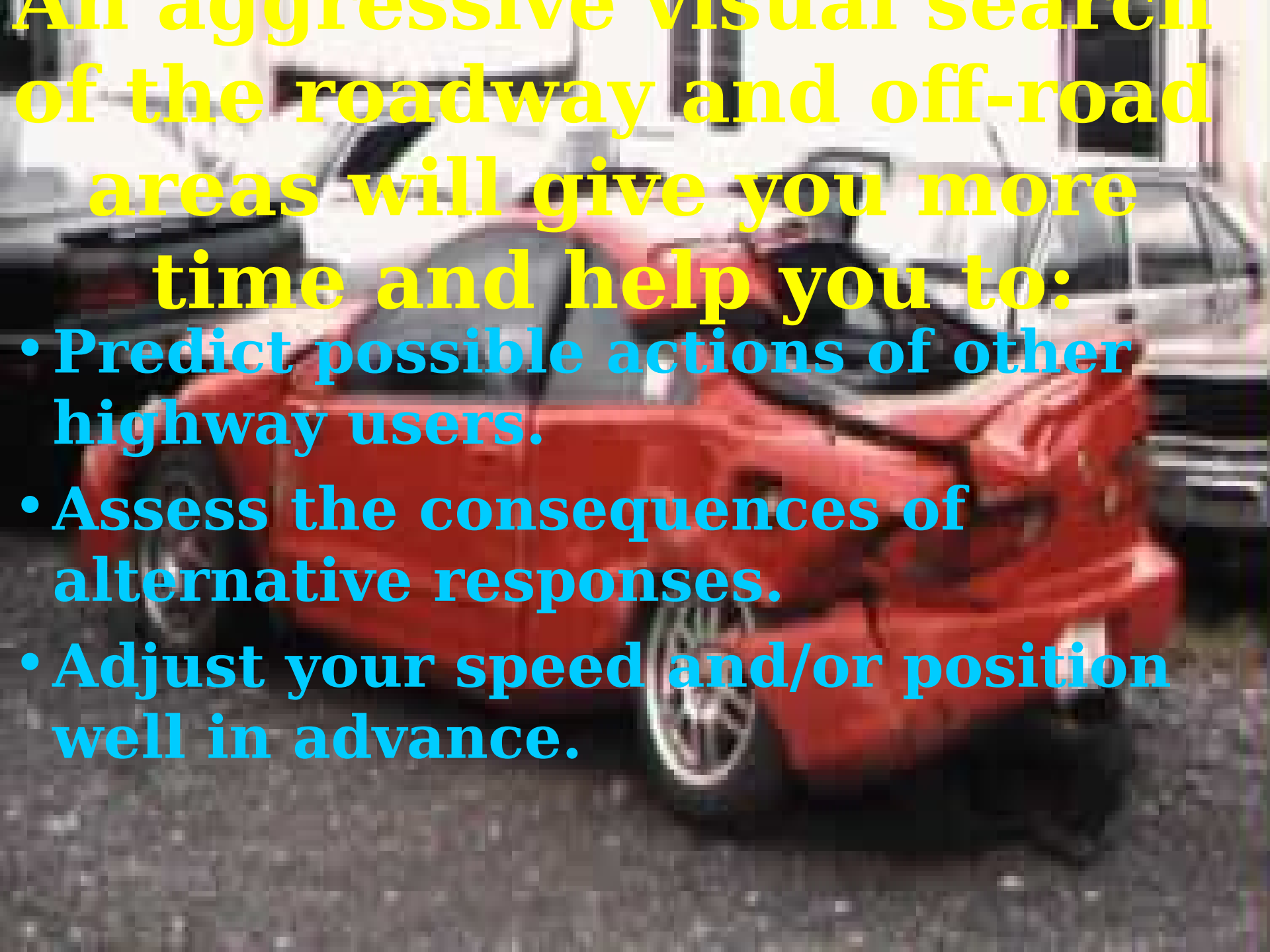
- **Managing risk starts with an aggressive visual search.**
  - **Don’t try to do too many things at one time.**

An aggressive visual search of the roadway and off-road areas will give you more time and help you to:

Achieve early awareness of other highway users.

Identify an escape route if needed.

Determine how much



An aggressive visual search of the roadway and off-road areas will give you more time and help you to:

- **Predict possible actions of other highway users.**
- **Assess the consequences of alternative responses.**
- **Adjust your speed and/or position well in advance.**

Review

- At what time is a young driver more likely to have a mishap?

Day time.

Afternoo n.

Night time.

Review

Managing risk starts with _____?

Checking traffic flows.

Watching traffic signs/ lights.

Aggressive visual search

Review

- **What's important to remember about actions of all roadway users?**

They affect all other users.

They are unexpected.

They don't pay attention

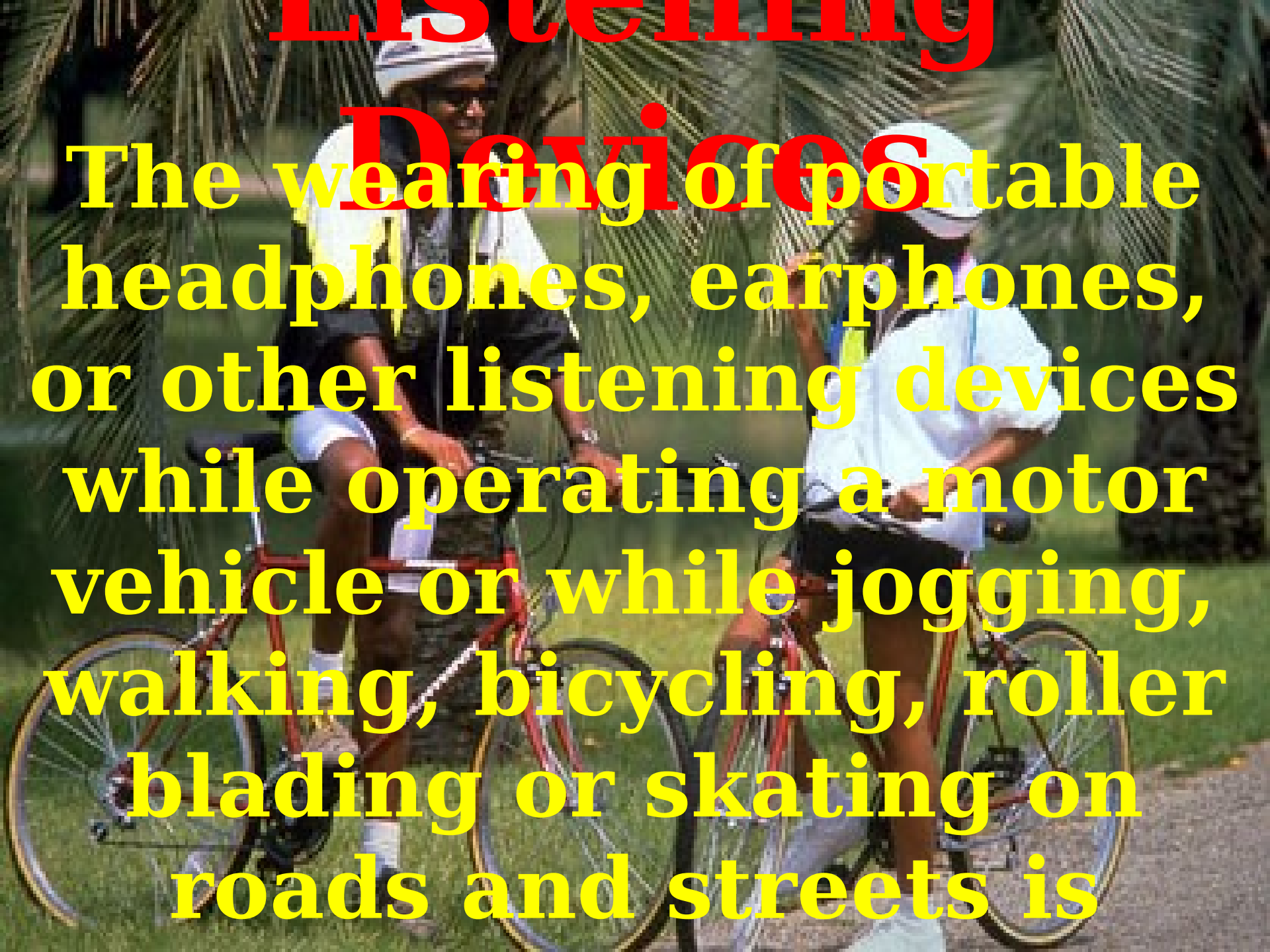
Review

- In managing risk, a visual search will help you identify _____?

An escape route if needed.

A way to pass slower traffic.

Warning signs.



Listening Devices

The wearing of portable headphones, earphones, or other listening devices while operating a motor vehicle or while jogging, walking, bicycling, roller blading or skating on roads and streets is

Driving
Regulations
No person shall
operate ANY motor
vehicle without a
VALID state driver's
license in their

Regulations

- **SPEED**
  - Vehicles must proceed at no more than the posted speeds, consistent with traffic and weather conditions, so as not to endanger pedestrians, if present, in the area or to hazard other personnel or vehicles.

Speed

- Young male drivers are the most likely to speed (Army statistics).
- Young drivers (under 21) who speed, also fail to wear safety belts.
- In 2002, 34 percent of the fatal crashes had drivers (that's 13,025 people) that were not restrained.

Speed (continued)

- The chance of death or serious injury doubles for every 10 miles per hour over 50 miles per hour that a vehicle travels.
- One mile per hour is approximately 1.5 feet per second. Therefore, a vehicle traveling 60 miles per hour is covering 90 feet per second.

Review

Who are the most likely to speed?

Young Male Drivers.

Older drivers

Young female drivers.

Review

A vehicle traveling 60 miles per hour is covering how many feet per second?

60 feet per second.

90 feet per second.

120 feet per second.

Safety Belts and restraints

- In 2002, if every person driving had buckled up, an additional 16,567 deaths could have been prevented.
- IT'S THE LAW. ALL MILITARY PERSONNEL WILL WEAR SAFETY BELTS AT ALL TIMES (INCLUDING YOUR OWN VEHICLE) AS DIRECTED BY AR 385-55, Motor Vehicle Accident Prevention.

Headlights and you.

- IT'S the LAW.
- If you have your windshield wipers on for rain or snow you MUST have your headlights on.

Facts and figures

- The National Highway Traffic Safety Administration tallied the cost of motor vehicle accidents and the figure was **$150 BILLION**.
- These were based on costs arising from crashes that killed **40,716 people**, and injured **5.2 million others**.

Review

Who is required to wear safety belts?

EVERYONE.

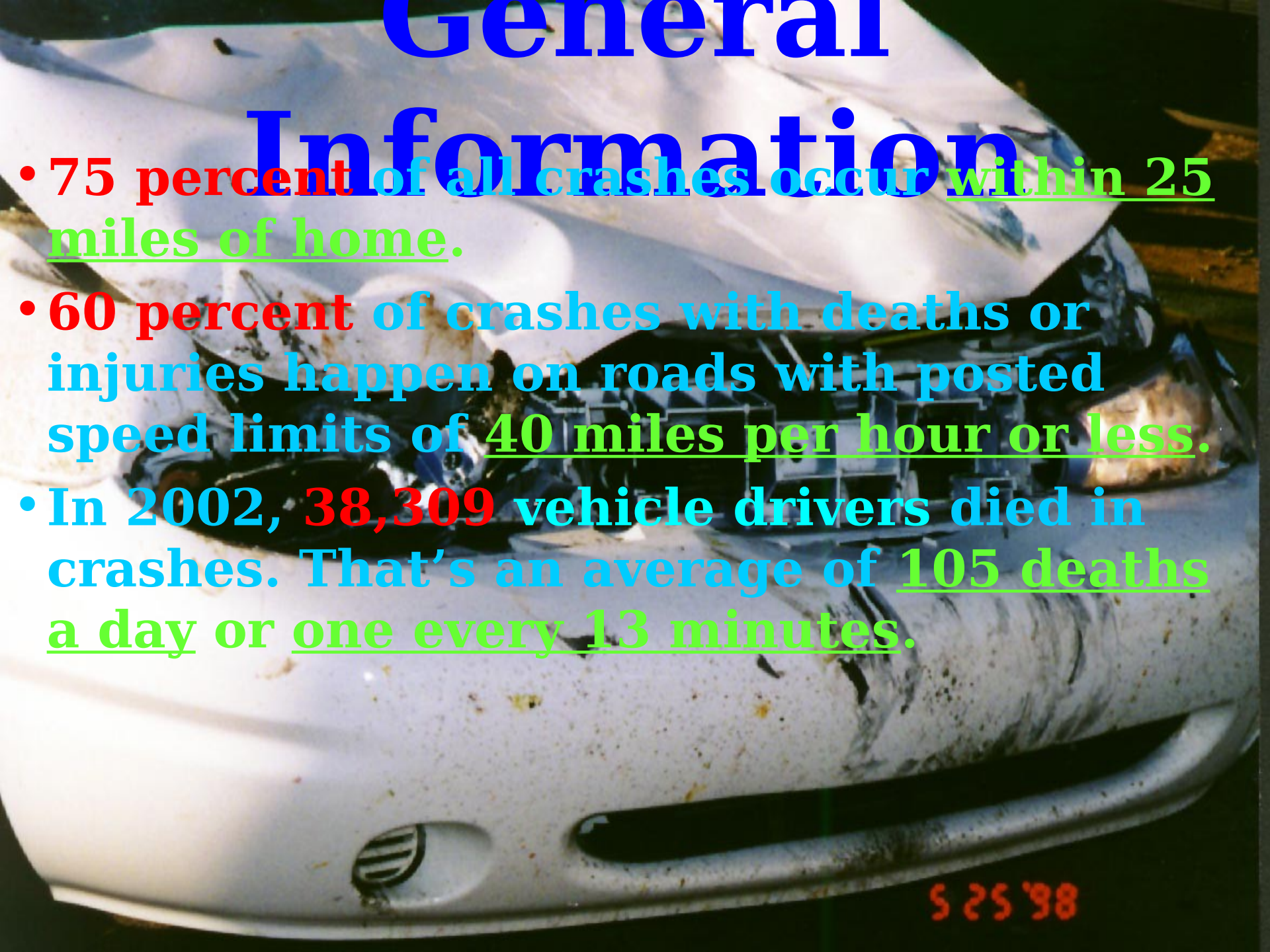
ALL PASSANGERS.

DRIVER ONLY.

General Information

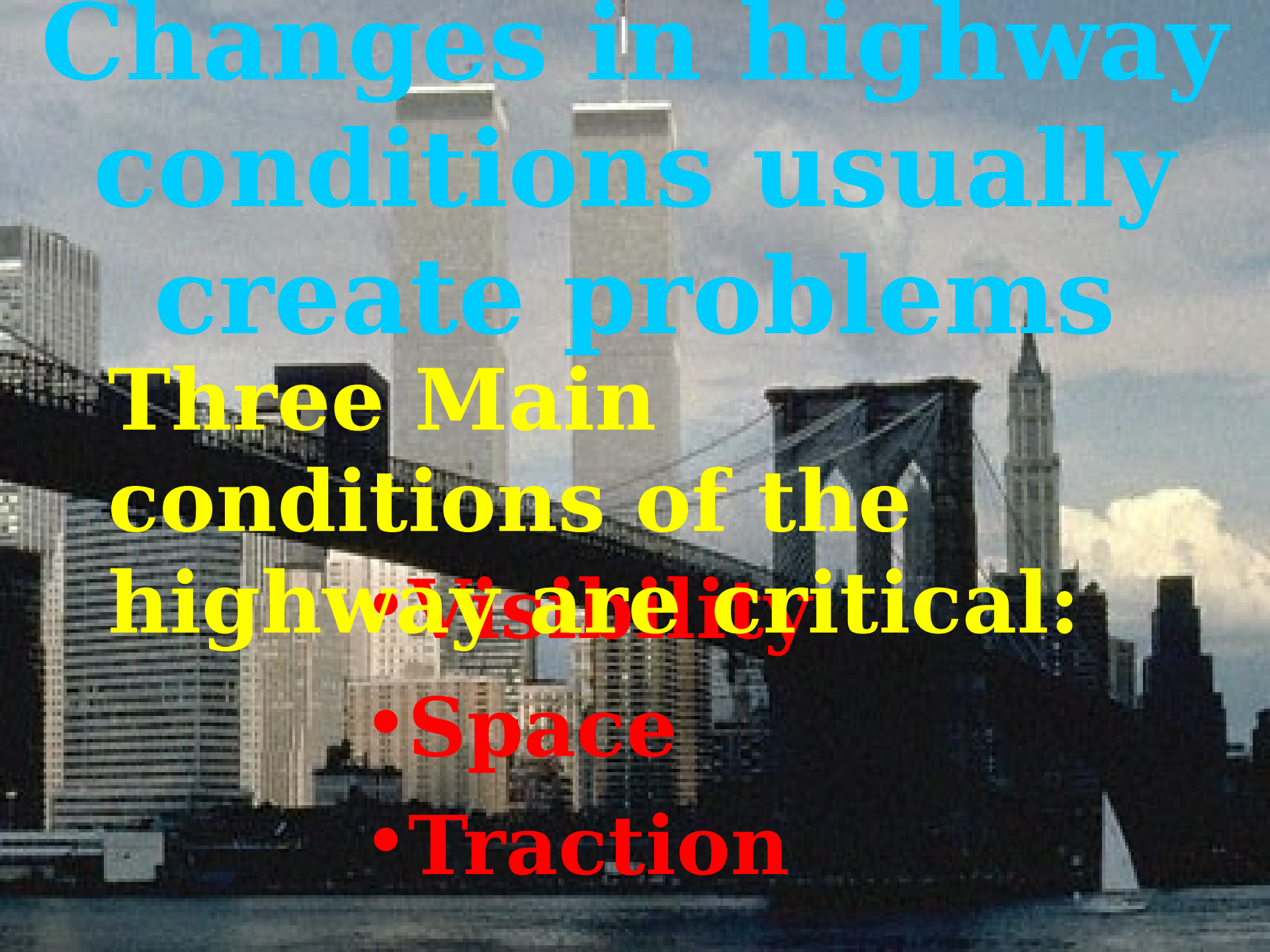
- Motor-vehicle crashes cost society more than $150.5 billion each year.
- Personal and household crimes cost their victims $19 billion.

General Information



- 75 percent of all crashes occur within 25 miles of home.
- 60 percent of crashes with deaths or injuries happen on roads with posted speed limits of 40 miles per hour or less.
- In 2002, 38,309 vehicle drivers died in crashes. That's an average of 105 deaths a day or one every 13 minutes.

Identification of high-risk highway conditions



Changes in highway conditions usually create problems

Three Main conditions of the highway are critical:

- Visibility
- **Space**
- **Traction**

Visibility

- As a driver, you must have a clear field of vision to gather information and guide a motor vehicle effectively.

- Good driving visibility

Visibility

- It consists of your line of sight and field of view.
- Your field of view is the entire area of the highway and its surroundings that you can see at any given moment.

Visibility

- Line of sight is the imaginary line that extends from the drivers eyes to

Highway Conditions

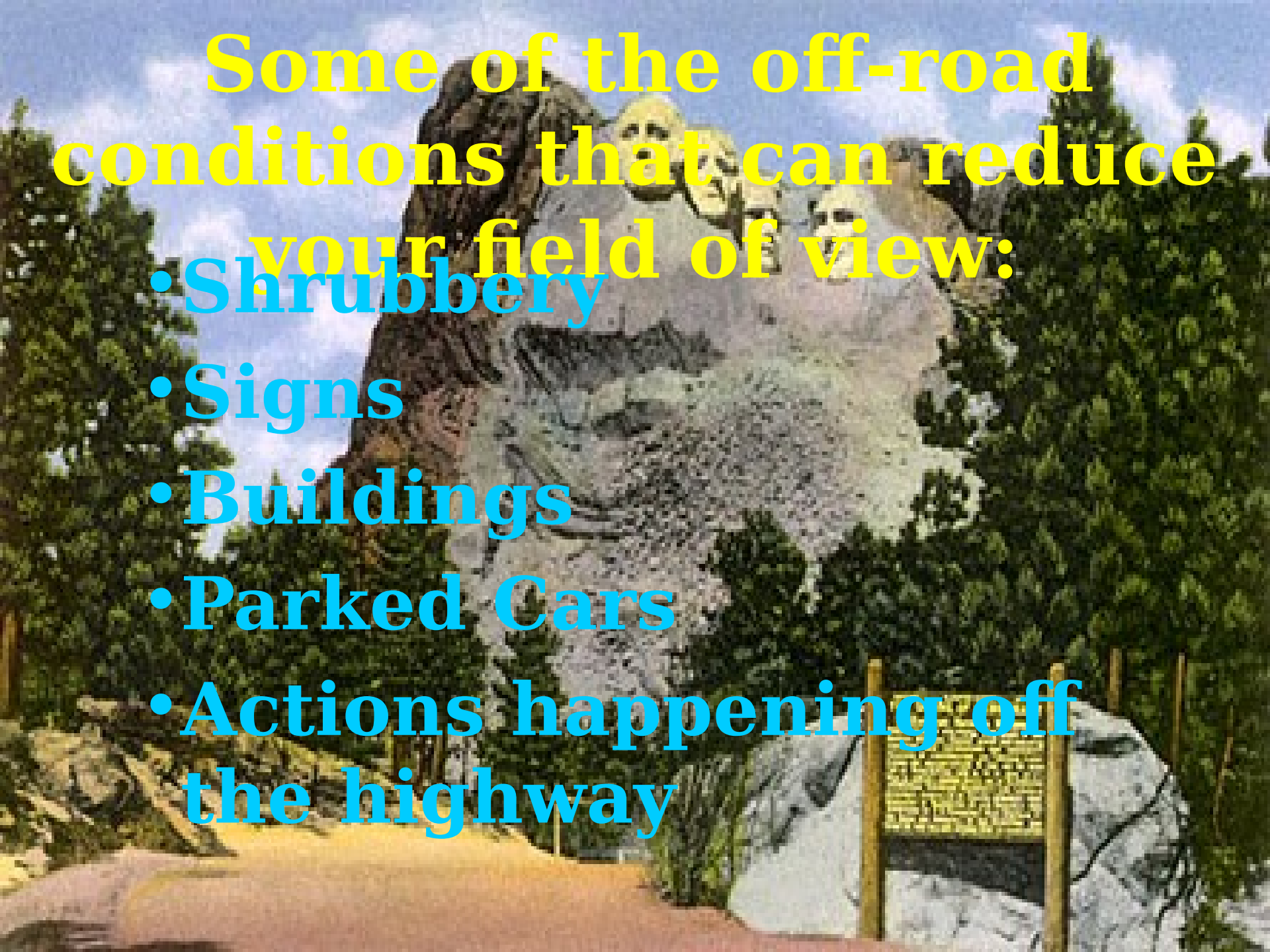
- Visibility changes continuously as the driver moves along the highway.
- You must identify areas of reduced visibility well ahead.

Highway Conditions

- An area of reduced visibility is any highway area ahead where the sight distance and/or field of view is less than that required for safe travel at your current speed.

Conditions Off-road

- Conditions Off-road can also reduce your field of view to either side of your intended path of travel on a highway.



Some of the off-road conditions that can reduce your field of view:

- Shrubbery
- Signs
- Buildings
- Parked Cars
- Actions happening off the highway

Off-road Conditions

- Such obstacles not only prevent YOU from seeing, but could prevent OTHER drivers from seeing you.
- These situations are especially risky, hidden dangers can appear suddenly in your stopping zone.

A Reduced Field of VIEW may hide:

- Intersections
- Driveways
- Other vehicles
- Bicycles
- Joggers
- Pedestrians
- Children

Traffic Conditions

- Can reduce a drivers sight distance and visual lead time.
- Fixed or slow moving objects may come into view too late.
- Larger vehicles can also reduce your view of the path ahead.

Review

What are the three critical conditions of the highway?

Control, attention & visibility.

Speed, lane use & distance.

Visibility, space & traction.

Review

We know that good driving visibility depends on 2 things, ?

No glare, good weather.

Line of sight, field of view.

Mirror adjustment, clean windows.

Review

Which 2 conditions can reduce a drivers visibility ?

Off-road and traffic.

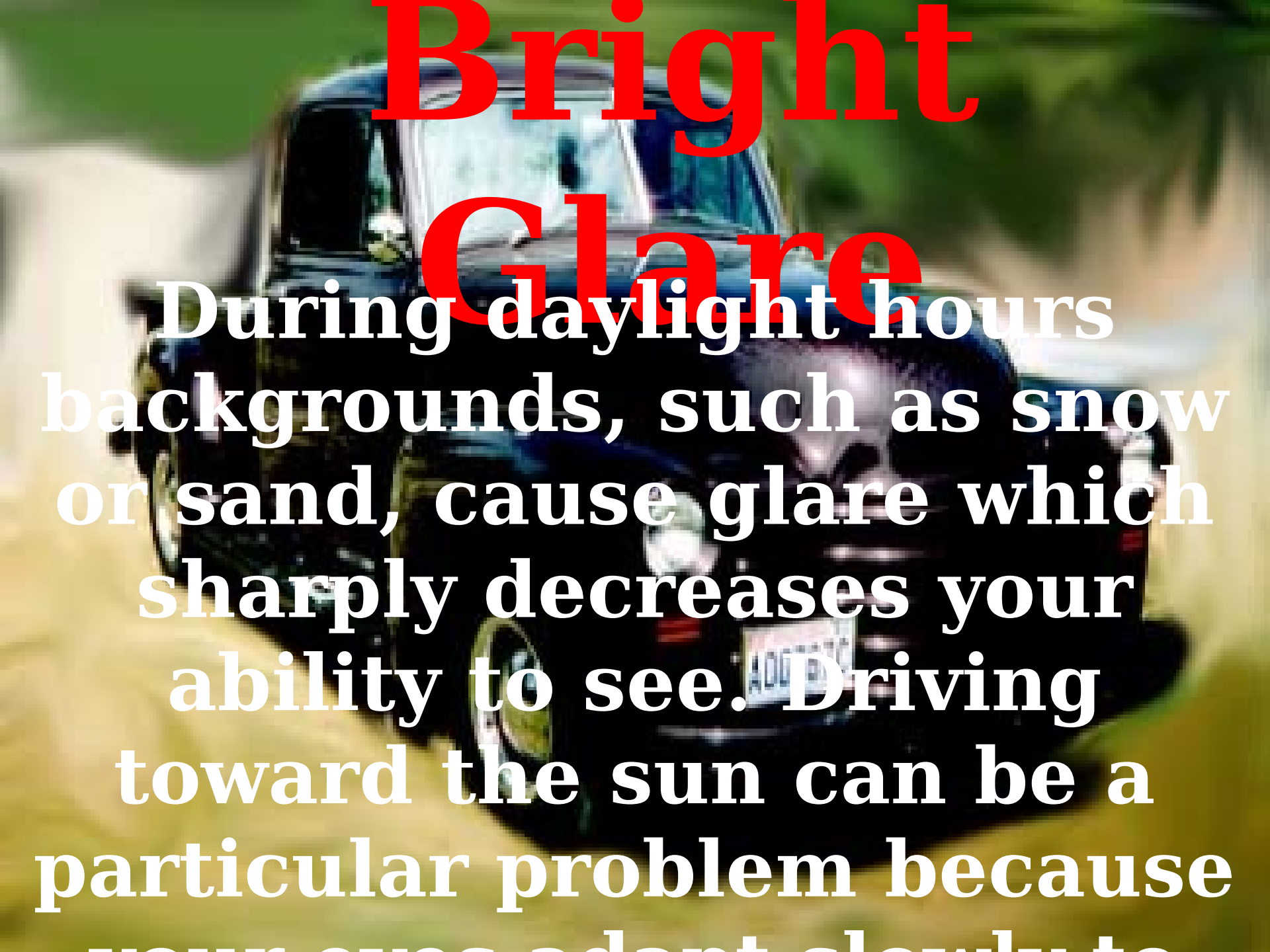
Weather and traction.

Vehicle and maintenance.

Your Driving Environment

Examples that may affect your driving environment:

- Bright Glare
- Sunglasses
- Driving at Night
- Driving at Dusk
- Bad Weather



Bright Glare

During daylight hours backgrounds, such as snow or sand, cause glare which sharply decreases your ability to see. Driving toward the sun can be a particular problem because

SUNGLASSES!

Keep sunglasses clean and free of scratches. Polaroid, neutral gray, or green are rated the best for reducing glare.

Driving at Night

Visibility problems associated with nighttime driving are the least understood. Aside from reduced details, darkness conceals many objects

Driving at night

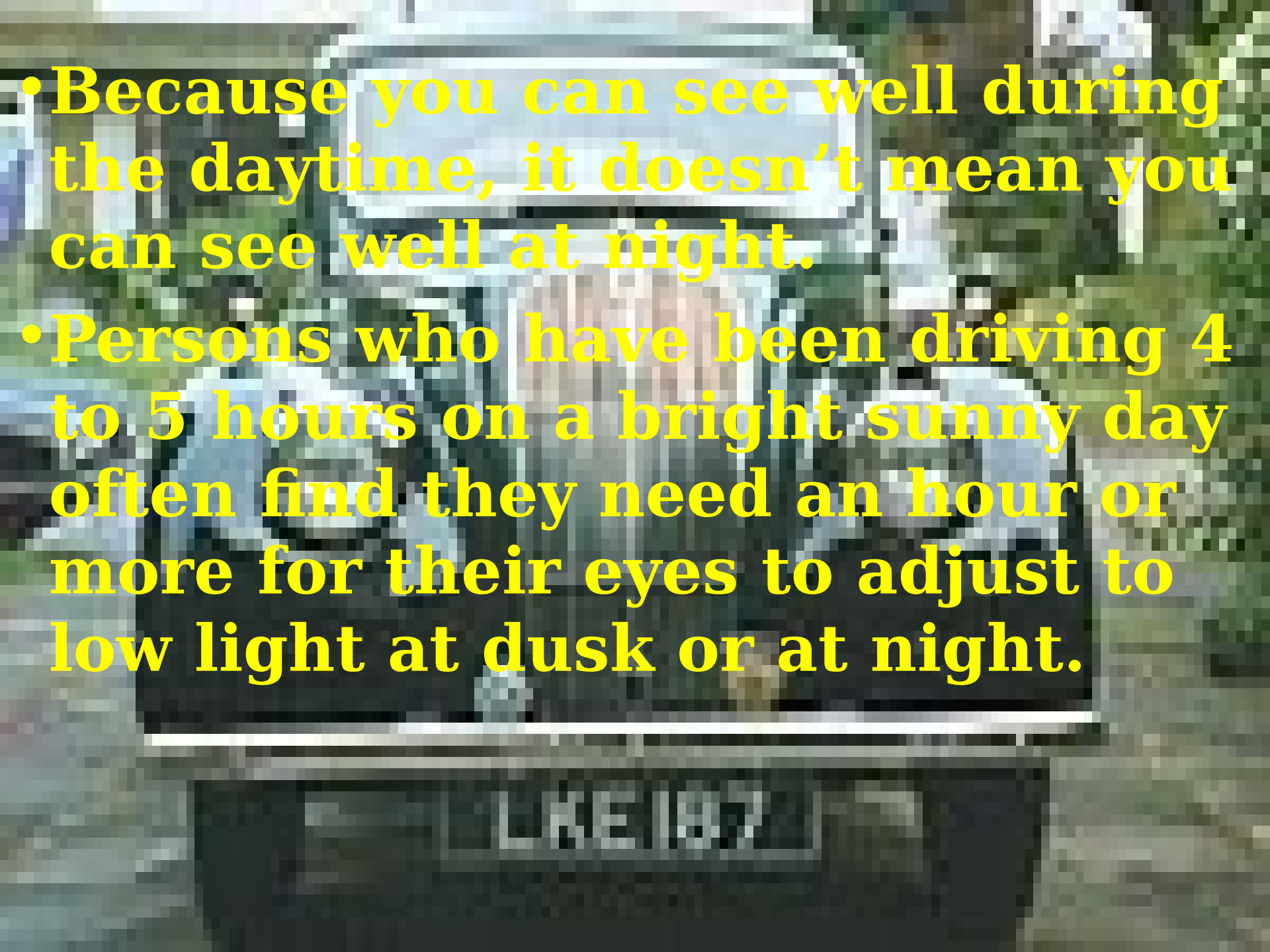
No one can see as well at night as during the daytime.

Your sight distance is limited to the distance lighted by your cars headlights. At night you do not have the advantage of color or contrast that you have during daytime driving.

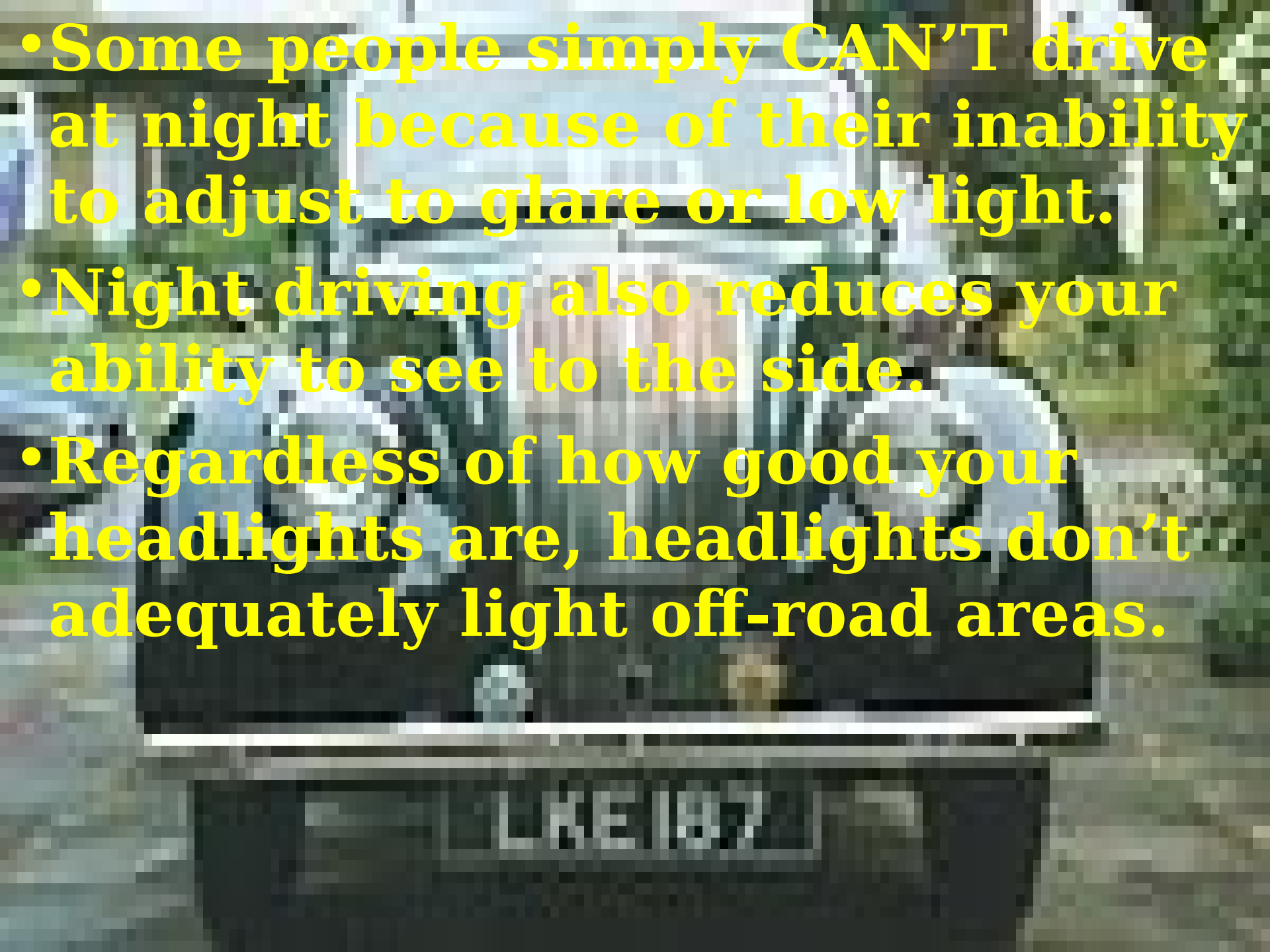
Night Vision

Three factors affect your night vision.

- Ability to see under conditions of low light.
- Ability to see against glare.
- Time needed to recover from exposure to bright light.



- Because you can see well during the daytime, it doesn't mean you can see well at night.
- Persons who have been driving 4 to 5 hours on a bright sunny day often find they need an hour or more for their eyes to adjust to low light at dusk or at night.



- **Some people simply CAN'T drive at night because of their inability to adjust to glare or low light.**
- **Night driving also reduces your ability to see to the side.**
- **Regardless of how good your headlights are, headlights don't adequately light off-road areas.**

To minimize the problems of night driving:

- Adjust your speed to compensate for reduced visibility.
- Keep your eyes moving. Don’t focus on the middle of the lighted area.
- Use your high and low beams correctly.
- Avoid steady driving around your usual bedtime.

To minimize the problems of night driving:

- Look to the sides of objects.
- Protect your eyes from glare.
- Keep windshields and headlights clean.
- Make it easier for others to see you.
- Use cars without tinted windshields.

Review.

- What can YOU do about bright glare?

Sunglasses.

Drive at night only

Stop driving

Review:

- These are two ways to minimize the effects of night driving:

Adjust your speed to compensate for reduced visibility.

Use your high or low beams correctly.

True.

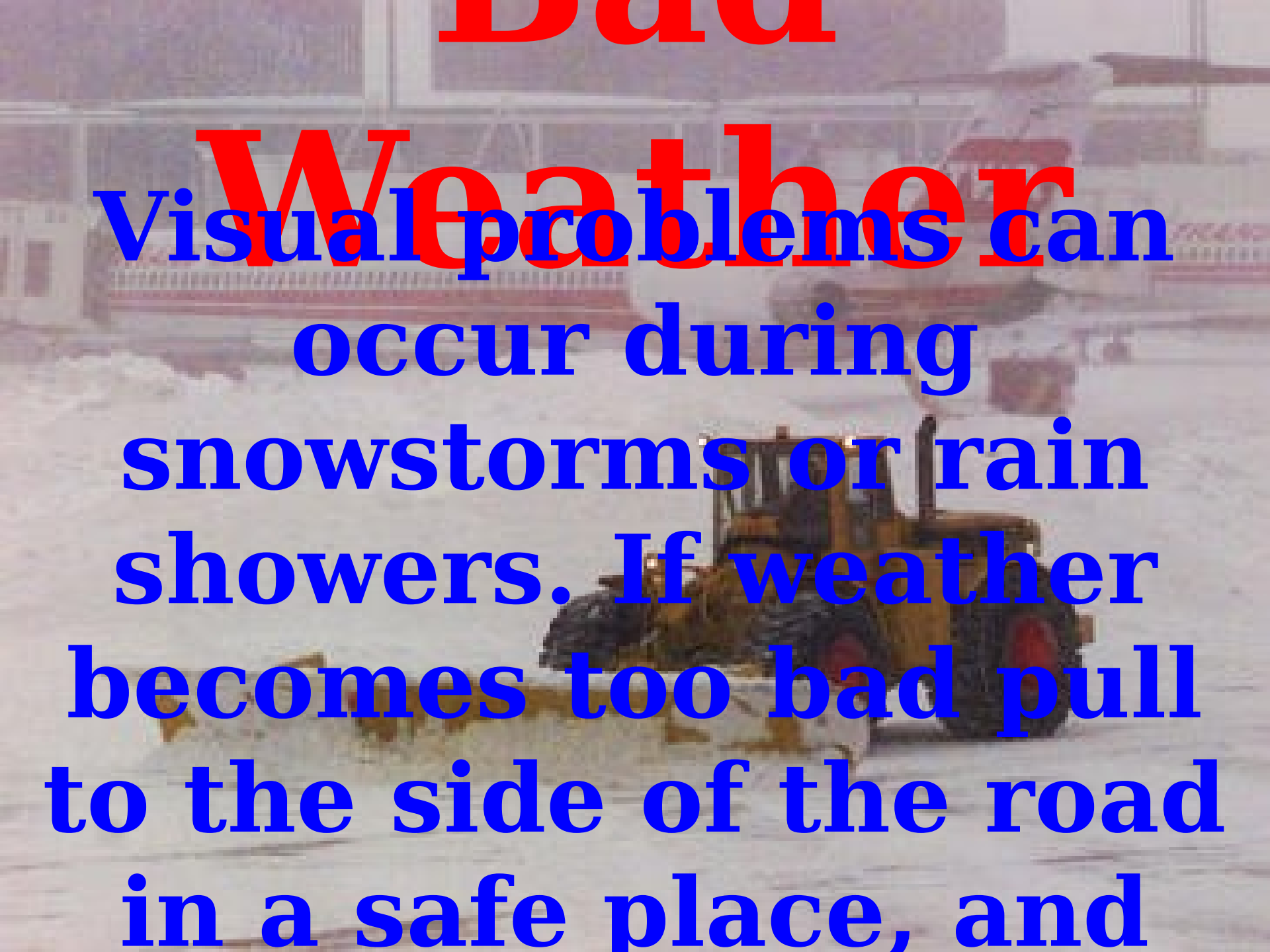
False.

What may affect your driving environment?

- Bright Glare
- Sunglasses
- Driving at Night
- Driving at Dusk
- Bad Weather

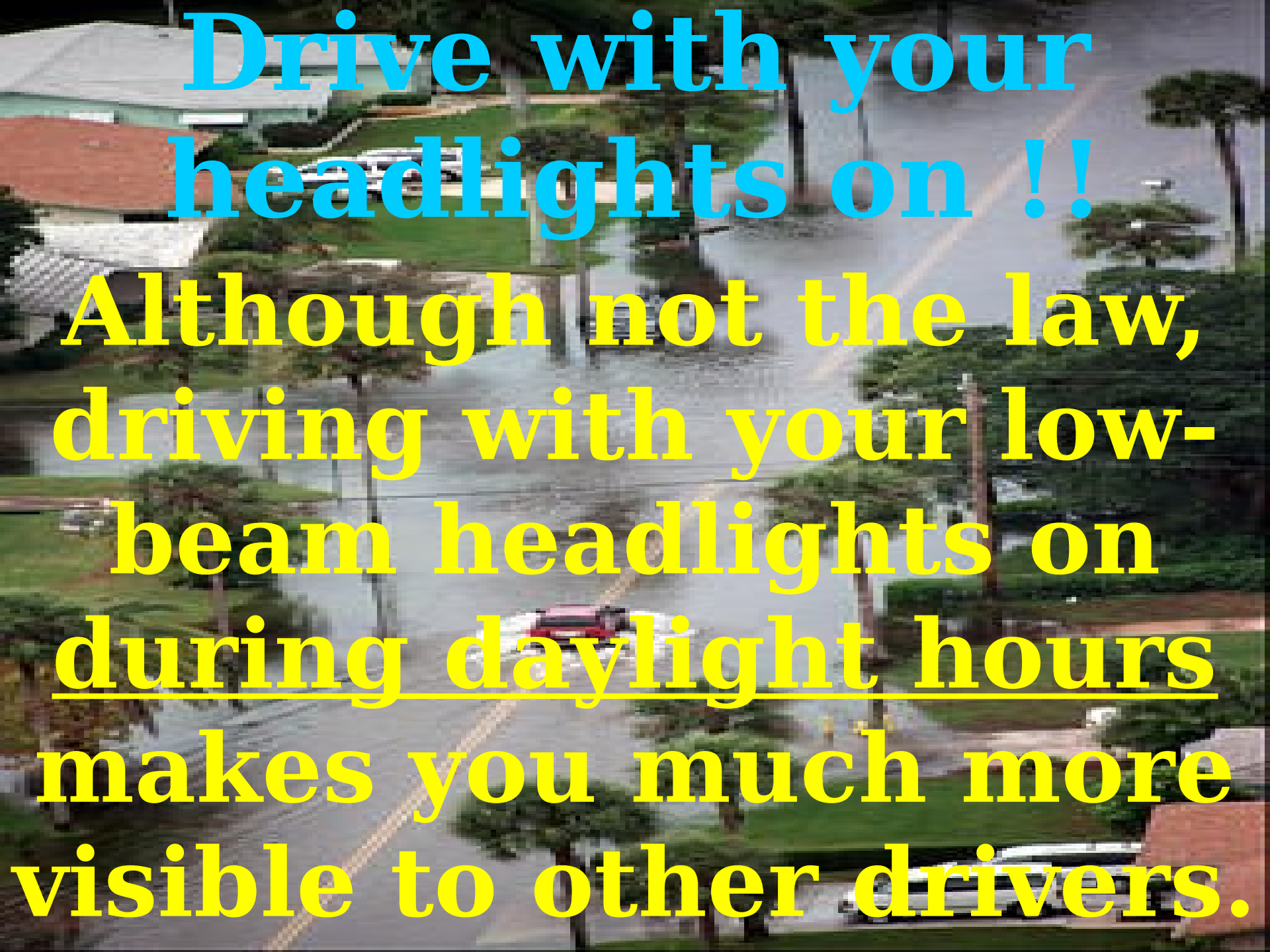
Driving at Dusk

Be especially alert at dusk. The sky still is quite bright, but objects on the road can merge with shadows and fade into



Bad Weather

Visual problems can occur during snowstorms or rain showers. If weather becomes too bad pull to the side of the road in a safe place, and


Drive with your headlights on !!
Although not the law, driving with your low-beam headlights on during daylight hours makes you much more visible to other drivers.

Following Distance

- For safe movement forward, a vehicle must have a clear path equal to the minimum stopping zone for the speed traveled.

Allow a safe interval

- Space allows you time to stop safely if other drivers brake suddenly.

A GENERAL RULE IS:

- With good visibility and a safe alternate path of travel, allow a 2 to 3 second interval when you follow another vehicle on dry pavement.

Traction

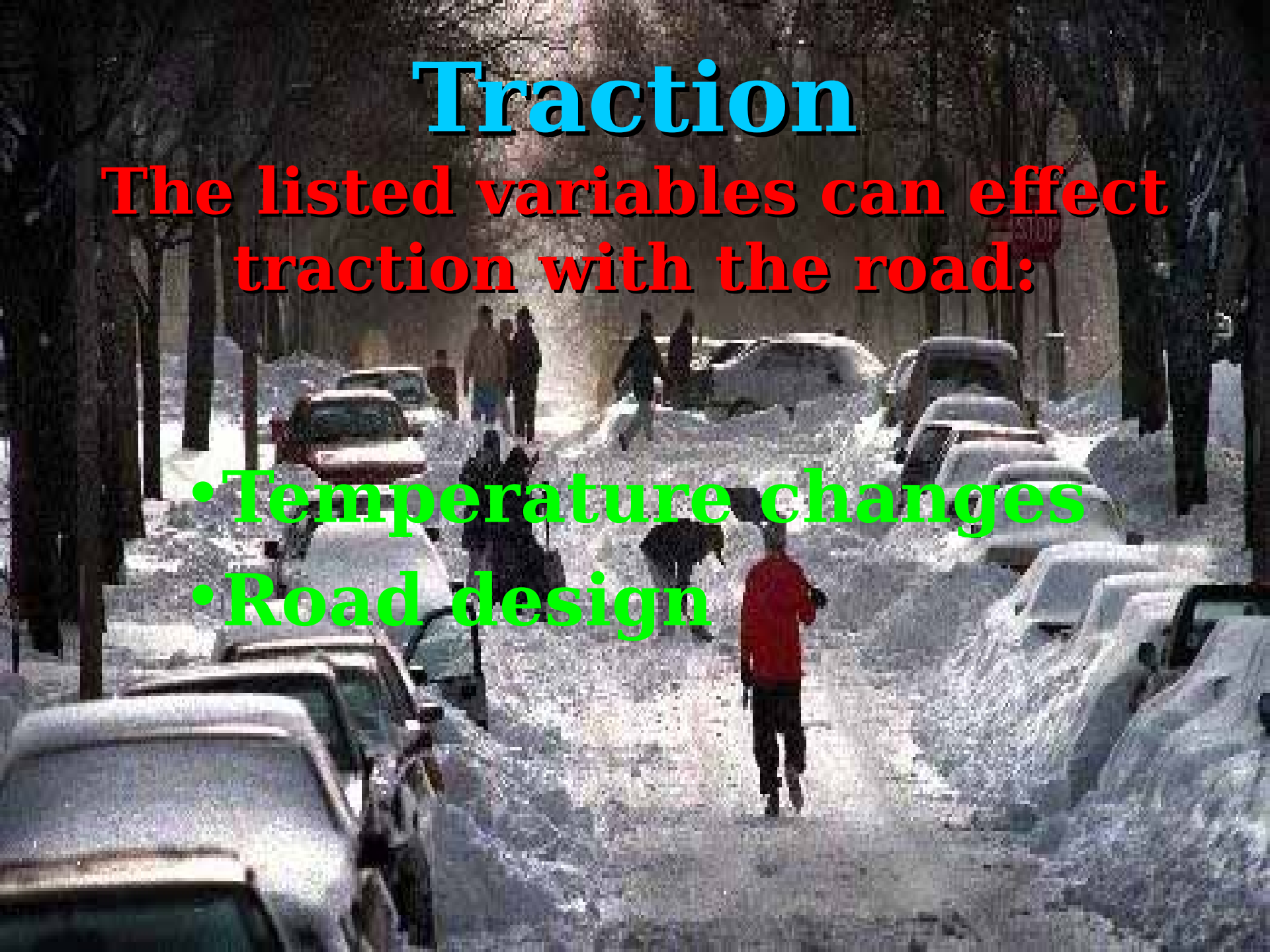
The listed variables can effect your adhesion with the road:

- **Types of surfaces:**
  - **Concrete**
  - **Blacktop**
  - **Brick**
  - **Dirt**
  - **Gravel**
  - **Sand on hard surface**

Traction

The listed variables can effect your traction with the road:

- **Surface conditions:**
  - **Water**
  - **Snow**
  - **Ice & BLACK ICE**
  - **Dirt**
  - **Oil from cars**



Traction

The listed variables can effect traction with the road:

- Temperature changes
- Road design

Review.

- How many seconds is needed for a safe following distance?

2 to 3 seconds.

4 to 6 seconds.

3 to 7 seconds.

Review.

- If you can’t see, you should pull to the side of the road at a safe place and wait for the weather to clear.

True.

False

Seat belt myths

- How many of these myths have you heard ?
  - I don't need a safety belt when I'm traveling at low speeds or going on a short trip.

More than 80 percent of all motor vehicle crashes occur at speeds less than 40 MPH and within 25 miles from home.

Seat belt myths

- How many of these myths have you heard ?
  - I'm uncomfortable and too confined when I wear a safety belt.

Safety belts are designed to allow you to reach necessary driving controls. The newer shoulder belt

Seat belt myths

- How many of these myths have you heard ?
  - I might be saved if I'm thrown clear of a car in a crash.

The fact is that your chances of being killed are <u>FOUR</u> times greater if

BOTTOM
LINE
ALWAYS WEAR
YOUR SEAT BELT
"IT'S THE
LAW"
98 4 4